

Title (en)
METHOD FOR THE EMULSION POLYMERIZATION OF OLEFINS

Title (de)
VERFAHREN ZUR EMULSIONSPOLYMERISATION VON OLEFINEN

Title (fr)
PROCEDE DE POLYMERISATION EN EMULSION D'OLEFINES

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Application
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Abstract (en)
[origin: US2005261452A1] A method for the emulsion polymerization of one or more olefins by reacting a ligand of general formulae Ia and Ib or a mixture of at least two ligands Ia or Ib, wherein R respectively represents one or several of the following radicals; hydrogen, halogen, nitrile, C₁-C₁₂-alkyl groups, C₁-C₁₂-alkoxy groups, C₇-C₁₃-aralkyl groups, C6-C14-aryl groups, and wherein identical or different compounds of general formulae Ia and Ib can, optionally, with a phosphine compound PR³ and a metal compound of general formula M(L²)₂ or M(L²)₂(L¹)_z, wherein the variables are defined as follows: M is a transition metal of groups 7-10 in the periodic system of the elements; L¹ represents phosphanes (R⁵)_xPH_{3-x} or amines (R⁵)_xNH_{3-x} with identical or different radicals R⁵, ether (R⁵)₂O, H₂O, alcohols (R⁵)OH, pyridine, pyridine derivatives of formula C₅H_{5-x}(R⁵)_xN, CO, C₁-C₁₂-alkylnitriles, C₆-C₁₄-arylnitriles or ethylenically unsaturated double bond systems, wherein x is a whole number ranging from 0-3, L² represents halogenide ions R⁶)_xNH_{3-x}, wherein x is a whole number ranging from 0-3 and R⁶ represents C₁-C₁₂-allyl, and C₁-C₆-alkylane ions, allylane ions, benzylane ions or arylane ions, wherein L¹ and L² can be concatenated with each other by one or several covalent bonds, z is a number ranging from 0-4. The invention also relates to the immediate use of the reaction product in the polymerization or copolymerization of olefins in water or in a solvent mixture containing at least 50 vol. % water in the presence of an emulsifier and, optionally, in the presence of an activator.

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